

Application No. 10/608,918

## REMARKS

In the office action of February 11, 2005, claims 1-45 were rejected under 35 USC Section 112, second paragraph, as being indefinite. Claims 1, 5-19, 21-22, 27-31 and 35-45 were provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-23 and 49-60 of copending Application No. 10/608,777 (which probably should be 10/608,877, as discussed below). Claims 1, 4-19, 21, 31, and 34-45 were rejected under 35 USC 103(a) as being unpatentable over Jacobs et al. (US 5,563,591) in view of Matsui (US 4,948,968). Claims 2-3 and 32-33 were rejected under 35 USC 103(a) as being unpatentable over Jacobs et al. in view of Matsui and in further view of Adams et al (5,455, 604). Claims 20, 22-30 and 45 were rejected under 35 USC 103(a) as being unpatentable over Jacobs et al. in view of Matsui and in further view of Loewen (US 5,017,776). Claims 23-24 were rejected under 35 USC 103(a) as being unpatentable over Jacobs et al. in view of Matsui, in further view of Loewen, and in further view of Adams et al.

Claims 5-9, 14-19, and 31-45 have been canceled. Claims 1, 20, and 22 have been amended. New claims 46-55 have been added.

### The Section 112 Rejections

Claims 1 and 22 have been amended to define the optical grating as including an optical track comprising a series of contiguously adjacent encoder bars that are substantially uniformly spaced center to center so as to have a substantially uniform pitch, the series of contiguously adjacent encoder bars including a plurality of contiguously adjacent first encoder bars and a plurality of second encoder bars. In this manner, the plurality of

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contiguously adjacent first encoder bars and the plurality of second encoder bars have a substantially uniform pitch.

Claims 19 and 31 have been canceled.

In view of the foregoing, it is respectfully submitted that the Section 112 rejections have been overcome.

The Obviousness Type Double Patenting Rejection

Although the office action refers to Application Serial No. 10/608,777, it is respectfully believed that the office action intended to refer to Application Serial No. 10/608,877.

Submitted herewith is an appropriate Terminal Disclaimer that refers to Application Serial No. 10/608,877, and it is respectfully believed that the provisional obviousness type double patenting rejection has been overcome.

Claims 1-4, 10-13, 20-21, and 22-30

The rejections of claims 1-4, 10-13, and 20-21 are respectfully traversed since the references do not teach or suggest each and every limitation of these claims including for example:

the optical grating including an optical track comprising a series of contiguously adjacent encoder bars that are substantially uniformly spaced center to center so as to have a substantially uniform pitch, the series of contiguously adjacent encoder bars including (a) a plurality of contiguously adjacent first encoder bars of first encoder bar heights and (b) a plurality of second encoder bars of a substantially constant second

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encoder bar height, wherein each of the first encoder bar heights is different from the substantially constant second bar height.

The rejections of claims 22-30 are respectfully traversed since the references do not teach or suggest each and every limitation of these claims including for example:

the optical grating including an optical track comprising a series of contiguously adjacent encoder bars that are substantially uniformly spaced center to center so as to have substantially uniform pitch, the series of contiguously adjacent bars including (a) a plurality of contiguously adjacent first encoder bars of respective first encoder bar widths and (b) a plurality of second encoder bars of a substantially constant second encoder bar width, wherein the contiguously adjacent first encoder bars and the second encoder bars have non-linear sides, and wherein each of the first encoder bar widths is different from the substantially constant second encoder bar width.

The assertions in the office action that certain limitations are a matter of design choice are respectfully traversed, since obviousness cannot be based on what a person skilled in the art might try. It is further respectfully submitted that whether something solves a stated problem is also not a test for obviousness.

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New Claims 46-55

It is respectfully submitted that the references of record do not teach or suggest each and every limitation of new claims 46-55 including for example:

the optical grating including an optical track comprising a series of contiguously adjacent encoder bars that are substantially uniformly spaced center to center so as to have substantially uniform pitch, the series of contiguously adjacent bars including (a) a plurality of contiguously adjacent first encoder bars of respective first encoder bar transmissivities and (b) a plurality of second encoder bars of a substantially constant second encoder bar transmissivity, wherein each of the first encoder bar transmissivities is different from the substantially constant second encoder bar transmissivity.


Conclusion

Although no additional fee is believed to be required for this response, the undersigned Xerox Corporation attorney hereby authorizes the charging of any necessary fees, other than the Issue Fee, to Xerox Corporation Deposit Account No. 24-0025.

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If the Examiner considers personal contact advantageous to the disposition of this case, please call Applicant's attorney, Manuel Quiogue at 503.685.4229 or fax him at 503.685.4223.

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